

***DRAFT 5/18 4pm***

***Application No.11-52-0075-P***

***Finding of Fact and Conclusion of Law***

The Michigan Department of Environmental Quality (MDEQ) has initiated review of permit application # 11-52-0075-P

The application was submitted under authority of:

Part 301, Inland Lakes and Streams, Public Act 451 of PA 1994.

Part 303, Wetland Protection, Public Act 451 of PA 1994.

Part 17, Environmental Protection, Public Act 451 of PA 1994.

Part 31, Floodplain Regulatory Authority, found in Water Resources Protection, of Natural Resources and Environmental Protection Act, 1994 PA 451 as amended.

After due consideration of the permit application, on-site investigation, and review of other pertinent materials, the MDEQ finds:

- The Marquette County Road Commission is the proper applicant for the proposed project.
- The proposed road construction would directly impact 25.81 acres of wetlands, and a Part 303, the Natural Resources and Environmental Protection Act of 1994, as amended (NREPA) permit from the MDEQ is required for the proposed development.
- The proposed road construction would involve 22 stream crossings, 7 of which would be new crossings where there is no existing road, and a Part 301 of NREPA permit from the MDEQ is required for the proposed development.
- Some of the proposed stream crossings have regulated floodplains; some of these crossings would be new, where there is no existing road. A Part 31, Floodplain Regulatory Authority, of NREPA permit is required for the proposed development.
- The proposed road construction would directly impact at least one species of threatened or endangered species. Portions of the route which have been changed from the previous Woodland Road route were evaluated for potential impacts to listed species after submittal of the application. The proposed road construction requires a Part 365 of NREPA permit from the Michigan Department of Natural Resources (MDNR).
- The "Project Use and Alternatives" as well as the "Alternatives Analysis/Project Assessment" sections of the subject application serve as the alternatives analysis. Additional information was submitted by the applicant on April 12 and May 7, 2012, in response to the MDEQ's March 13, 2012 request for clarification and amplification needed to complete the alternatives analysis. The current information provided by the applicant indicates that the CR-595 alternative is

**Commented [wcl1]:** The highlighted statements appear to be conclusions/findings that should be placed elsewhere in the Findings.

21.4 miles long and will cost an estimated \$85 million. The applicant ~~appears to~~ eliminated two alternatives because they are not prudent. The Mulligan East High alternative is listed as approximately 48 percent more costly than the proposed route. The Mulligan East High alternative April 2012 version is 23.4 miles long with an estimated cost of \$131 million, wetland impacts estimated at 15.7 acres and 14 stream crossings. The Mulligan West alternative cannot avoid impacting a Nature Conservancy conservation easement. The Mulligan West January 2012 version is 25.6 miles long with an estimated cost of \$78 million, wetland impacts of 10.45 acres and 18 stream crossings. The Department concurs with the elimination of these two alternatives.

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However, The Red Road/CR510 January 2012 version is 39.9 miles long with and estimated cost of \$113 millions which is ~~alternative analysis is said to have a cost of~~ approximately 33 % higher cost (including maintenance costs) than the preferred alternative. The wetland impacts are estimated at 18.3 acres with 34 stream crossing. The applicant claims that this alternative does not meet the project purpose and is not feasible or not prudent because: 1) it does not substantially improve emergency, commercial, and recreational access to northwest Marquette County (see map); 2) the route is 19.9 miles longer than CR 595 which requires additional long term maintenance and costs 33% more than CR 595; 3) there are 12 more stream crossings than 595.

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The cost differential between the CR-595 alternative and the Red Road/CR510 alternative may be reduced if additional ~~which may not be unreasonable,~~ considering the use of available methods to minimize detriments to aquatic resources are required along CR-595. ~~for the proposed route.~~ For example, employing a method to span a sensitive wetland area or increasing the size of a new stream crossing to provide wildlife movement would be within the range of typical costs for a road that spans another road or other obstacle. It is unknown if similar increases would be required along the Red Road /CR 510 alternative. ~~The~~ Red Road/CR 510 alternative has less impact to wetland aquatic resources: With the Red Road/CR510 alternative, all the stream crossings are existing and would be upgraded. ~~There~~ There would be less wetland impact, and fragmentation of aquatic habitat would be less significant since this route is comprised of existing roads.

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The RedRoad/CR510 route has therefore not been eliminated as a less damaging feasible and prudent alternative to the proposed route.

With the original submittal of the application the applicant had determined that the Peshekee, Dishno, and 550 alternatives either did not meet the projects

purpose and need or were not feasible and prudent. The Department concurs with this conclusion.

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### **Part 303: WETLAND PROTECTION**

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Legislative findings as defined by sections 30302(1) of Part 303, Wetland Protection, of the Natural Resources and Environmental Protection Act 1994 PA 45, are as follows:

Section 30302(1) The Legislature finds that:

- (a) Wetland conservation is a matter of State concern since a wetland of 1 county may be affected by acts on a river, lake, stream, or wetland of other counties.

***(Finding) The proposed development would impact wetlands and streams in watersheds in both Baraga and Marquette Counties. Some wetland communities proposed to be impacted by the proposed activity are ranked S3, vulnerable to extirpation in Michigan (MNF I designation). These include: Hardwood-conifer Swamp described by the application as “abundant” along the proposed route; Rich Conifer Swamp and Northern Hardwood Swamp described as “moderately abundant”; and Poor Fen and Muskeg, described as “rare” in abundance along the proposed route (CR 595 MiRAM Document). (Where are these S3 complexes documented as being impacted?)***

- (b) A loss of a wetland may deprive the people of the state of some or all of the following benefits to be derived from the wetland:
- (i) Flood and storm control by the hydrologic absorption and storage capacity of the wetland.

***(Finding) The proposed road construction would result in impacts to the flood and storm control function of the affected wetlands, including increased runoff and sedimentation, and loss of floodplain and flood storage area. The road construction would directly eliminate 25.81 acres of wetland, much of which is located within floodplains and riparian areas along streams(found to be high-functioning wetlands along the proposed route, according to MiRAM data in the application), and all of which functions as storage areas of flood water, especially during spring thaws of heavy snow accumulations along the project location. The loss of floodplain storage has been mitigated to a great extent by providing a compensating cut within the floodplain area. Steps to minimize the impacts of increased runoff/sedimentation include directing road runoff into swales and ditches prior to entering a stream/wetland. (? Other methods) .***

- (ii) Wildlife habitat by providing breeding, nesting, and feeding grounds and cover for many forms of wildlife, waterfowl, including migratory waterfowl, and rare, threatened, or endangered wildlife species.

*(Finding) The proposed road would directly eliminate 25.81 acres of wetland, resulting in direct ~~loss of habitat~~ ~~loss for wildlife species and~~, ~~furthered by~~ fragmentation of remaining wildlife habitat. The proposed road represents would result in a potential and -significant physical barrier to wildlife movement, the potential of and increase in wildlife mortality. Impacts to habitat and increased mortality would result in negative effects on animal wildlife populations. Road generated noise would may cause additional negative impacts on wildlife habitat and species populations.*

*Further impacts to ~~wetlands~~, wildlife, ~~and plant~~ habitat would include the introduction of invasive plants, changes in wetland water flows, and water quality degradation resulting from runoff of road sand and salt, affecting adjacent wetland and riparian areas. Direct impacts to at least one rare, threatened or endangered plant species would result from the proposed road construction, which will require a permit from the MDNR.*

*The MDNR has recommended the following types of mitigation strategies to minimize potential wildlife impacts: 1) reduce speed limits to 45 mph in areas where moose vehicle strikes are a concern; 2) monitoring and reporting of vehicle wildlife collisions to determine if additional mitigation solutions are needed; 3) minimization of large grassy roadsides that may be attractive to wildlife as a food source; 4) minimization of a new road construction by upgrading and using existing infrastructure; 5) evaluation of new types of pavement to reduce road noise; 6) limiting secondary road construction; 7) use of native grasses for all roadside plantings; 8) survey for and removal of invasive/exotic noxious plants. 9) reducing road salt loads; 10 examining the use of calcium magnesium acetate or potassium acetate as an alternative to road salt.*

- (iii) Protection of subsurface water resources and provision of valuable watersheds and recharging ground water supplies.

*(Finding) The proposed road does not appear to be a significant threat to subsurface water resources or to interfere with groundwater recharge. As a mitigation technique (To minimize the impacts to adjacent wetlands the applicant is proposing equalizer culverts and a 3 foot layer of porous rock as part of the road construction to allow for the movement of ground water through the road bed. In addition cross culverts are proposed to be will be installed at various locations to allow surface water to flow from one side of the road to the other.*

- (iv) Pollution treatment by serving as a biological and chemical oxidation basin.

(Finding) The proposed road would directly eliminate 25.81 acres of wetland that currently ~~function to provide~~ this benefit, and ~~may result in would cause~~ negative effects on the existing ~~and remaining wetland contiguous~~ hydrology ~~and~~ water quality, ~~further impacting this wetland function, and introduce invasive species.~~

- (v) Erosion control by serving as a sedimentation area and filtering basin, absorbing silt and organic matter.

(Finding) ~~Cumulative water quality and habitat impacts to streams may result from construction of additional the road crossings, resulting in and additional fragmentation of riparian wetlands, including riparian wetlands currently providing this benefit. There will be reduced for streams which would be affected by road crossings. erosion on several of the existing crossings that are currently undersized and causing scour/erosion problems. All existing crossings would be upgraded in size to at least match bankfull conditions.~~

- (vi) Sources of nutrients in water food cycles and nursery grounds and sanctuaries for fish.

This wetland function ~~would may~~ be diminished by the proposed road project, ~~as a result of with the~~ elimination of some riparian wetlands and ~~may result in~~ cumulative impacts to ~~stream~~ water quality.

- (c) Wetlands are valuable as an agricultural resource for the production of food and fiber, including certain crops which may only be grown on sites developed from wetland.

(Finding) The proposed road ~~is not likely to would not~~ affect wetlands that are currently in ~~agricultural uses, or reasonably valuable for agricultural uses,~~ but could impact cultural uses of wetlands to some degree in the affected areas.

- (d) That the extraction and processing of nonfuel minerals may necessitate the use of wetland, if it is determined pursuant to section 30311 that the proposed activity is dependent upon being located in the wetland and that a prudent and feasible alternative does not exist.

(Finding) The proposed activity ~~does is~~ not ~~include the extraction of nonfuel minerals and is not~~ dependent upon being located in a wetland, ~~and is not needed for the extraction of nonfuel minerals. Less damaging feasible and prudent alternatives are presumed to be available, having not been eliminated~~

~~by the information supplied by the application, based on the lack of supporting documentation in the alternatives analysis to eliminate all potential alternatives.~~

- (2) In the administration of this part, the department shall consider the criteria provided in subsection (1).

### **Part 303: Wetland Permit Review Criteria**

Section 30311, of Part 303, states in pertinent part:

- (1) A permit for an activity listed in section 30304 shall not be approved unless the department determines that the issuance of a permit is in the public interest, that the permit is necessary to realize the benefits derived from the activity, and that the activity is otherwise lawful.

**(Finding)** A new primary county road is determined to be in the public interest by providing the listed benefits:

The proposed CR-595 project would benefit Marquette County by providing a more direct and improved route of access to northwest sections of Marquette County; would shorten haul distances for transporting mine ore, and aggregate and logging products to existing product processing centers located near the population centers of Marquette County; would reduce heavy truck traffic traveling through populated areas; and would shorten employee travelling distances to employment locations. There is significant support for this project from the majority of the local townships, cities and county governments in the area. There has been significant opposition to the project voiced by a number of private citizens and the following environmental groups/organizations : ??

Powell Township  
Great Lakes Indian Fish and Wildlife Commission  
Lac Vieux Desert Band of Lake Superior Chippewa Indians  
Yellow Dog Watershed  
National Wildlife Federation  
Upper Peninsula Environmental Coalition  
Water Action Vital Earth  
Superior Watershed Partnership

~~Removal of future mine-related heavy truck traffic from population centers in Marquette County, and reducing logging truck traffic in these areas to an extent. It would be an economic benefit by shortening haul distances for mine materials to the processing plant, and shortening timber haulage routes for timber products heading south or west from the area.~~

~~A new county primary road will ~~would~~ provide ~~increased~~ a public safety benefit by providing increased efficiencies and safety response times for ~~ectiveness for some~~ emergency services (e.g. EMS), to key industrial, logging and developing areas of northeast Marquette County while also increasing the need for others (e.g. fire control)~~

~~The proposed road would impact regulated wetlands, streams and floodplain areas and permits are necessary to realize the benefits of the proposed activity.~~

~~At the time of this review, the proposed activity has not yet been shown to be otherwise lawful under NREPA, since a permit is known to be required under Part 365, Endangered Species Protection, of NREPA ~~Natural Resources and Environmental Protection Act, 1994 PA 451 as amended~~. In addition, ~~and~~ not all areas ~~to be that would be~~ impacted by the proposed activity have ~~been~~ been adequately surveyed ~~evaluated for the need for a~~ Part 365 permit requirements. The ~~Department of Natural Resources~~ MDNR has identified ~~sites~~ concerns with potential impacts, and advises that previous surveys, both internal and external should be consulted in this matter in order to meet Part 365 requirements.~~

- (2) In determining whether the activity is in the public interest, the benefit which reasonably may be expected to accrue from the proposal shall be balanced against the reasonably foreseeable detriments of the activity. The decision shall reflect the national and state concern for the protection of natural resources from pollution, impairment, and destruction. The following general criteria shall be considered:

(a) The relative extent of the public and private need for the proposed activity.

Public Need for Proposed Activity: The Marquette County Road Commission (MCRC) has stated within the application for permit, that the MCRC, as the public agency responsible for considering county road needs, has determined that there is a substantial public need for a new county primary road to service northwest Marquette County. The DEQ, in deference to the Marquette County



Road Commission's responsibility for making determinations for the use and needs of county roads, has accepted that there exists a public need for a new county primary road.

Private Need for Proposed Activity: There exists a private need for a new primary county road to meet existing and future demands for improved access and safety concerns related to the mineral mining, aggregate extraction, and forestry products industries of northwest Marquette County and for the transportation of products, services and people to and from the source location to the processing facilities located in developed areas of Marquette County and other locations throughout the Upper Peninsula of Michigan. In addition, there exists both a private and public need for improved year-around access to recreational lands held in private and public ownership in northwest Marquette County and for the transportation of people, goods and services to and from population centers.

(Finding) The need for a new county primary road has been established in the application, in deference to the County Road Commission's responsibility to make this type of determination.

- (b) The availability of feasible and prudent alternative locations and methods to accomplish the expected benefits from the activity.

(Finding) See (a) above. The Red Road/CR510. One potential alternate route, and one potential route using existing roads, both with less wetland aquatic resource impacts but and less new stream crossing impacts more stream crossing have not been ruled out by the MDEQ Department at this time. The applicant has indicted that this option is not feasible and prudent, as required by Rule 2(a), of the administrative rules for this part.

Alternative methods were considered in the application for the proposed route, in order to minimize the impacts on aquatic resources of the proposed route. These included items such as 1 on 2 side slopes with guard rail, reduced speed limits to accommodate leaving curves, directing stormwater runoff from directly entering a stream or wetland and properly sized culverts to match stream flows. but Additional methods are being discussed with the applicant likely available to further reduce impacts, although these additional methods may increase cost.

- (c) The extent and permanence of the beneficial or detrimental effects which the proposed activity may have on the public and private uses to which the area is suited, including the benefits the wetland provides.

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(Finding) The proposed road would ~~terminate dead-end~~ at an existing designated seasonal county road (CR IAA), which would be maintained to the east of the mine location by a private mining company for their hauling use until such time as the proposed CR 595 would be available . Leaving this portion of CR IAA to be maintained as a seasonal road the projected 7 to 12 year life of the mine. This would mean that proposed CR 595 would not not significantly benefit the main population center of northwest Marquette County, which is the town of Big Bay, and much of Powell Township. This area has current access to the Marquette area via CR 550. The new road would benefit the economic interests of the mining, logging, and aggregate industries in remote NW Marquette County, improve private property access and values, and would increase the tax base in the 4 directly affected townships in the geographical area.

The new road would open up a remote area, thereby improving the recreational access in a sense, but would result in loss of current quiet recreational values, due to road noise and other road impacts, including those on wildlife. The new road would eliminate access to much of the existing network of two track roads and trails currently used for multiple recreational purposes.

The new road would provide for faster, more efficient, direct and year round access to some of northwest Marquette County for law enforcement and emergency services. It would also unavoidably result in increased wild fires since most are caused by human activity. The new road would likely result in an increase in emergencies and law enforcement issues due to increased human use of the area. Emergency and law enforcement access to the main population center of northwest Marquette County in the town of Big Bay and much of Powell township would not be improved by the new road.

The new road would improve emergency access to the area by emergency responders, benefitting them, the public, land owners in the area, and industry. The response time from the Bell Memorial hospital in Ishpeming will be 30-45 minutes long the proposed CR-595 route versus 90 minutes for the RedRun/CR510 route. However, these benefits could be provided to a greater degree in the population center (Big Bay and much of Powell Township) of the area in question ~~by the improvement of existing roads (i.e. the Red Road/CR510 alternative. — . The response time form Marquette General hospital would be similar for both routes as the response route would following CR 550 instead of 595 or Red Road/CR510. Improvement of existing roads or the use of a less damaging alternate route would provide the same benefits as the proposed route, although perhaps to a lesser degree in the most remote portion of northwest Marquette County.~~

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The detriments of the new road as proposed include the permanent loss of 25.81 acres of wetlands, fragmentation of habitat, take of protected plant species associated with aquatic habitats, negative effects on wildlife movement and increased wildlife mortality, impairment of water quality at wetland and stream crossings, and loss of some types of recreational and cultural values to humans. The new road as proposed ~~could~~would likely ~~would~~ result in significant cumulative impacts ~~from increased~~ if secondary roads, industrial, and residential development ~~are allowed to occur as a result of~~ by opening up an essentially undeveloped area. The area is unique in currently having one of the lowest road densities in the Northern Great Lakes Region. The applicant argues that this area will not likely open up to increased development because of the lack adequate power to the area.

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(d) The probable effects of each proposal in relation to the cumulative effects created by other or existing and anticipated activities in the watershed.

(Finding) The proposed road and the potential alternative locations and methods of construction would result in cumulative impact effects on aquatic resources ~~if by furthering industrial use and access and increased residential development and private property value occurs.~~ However, the proposed road location opens up a relatively undeveloped area, resulting in significant disruption of rare and imperiled wetlands ~~(this needs to be verified and supported some how)~~ along the proposed route. Locating the road as proposed would apparently not fully serve the stated project purpose in the population center of the affected area, ~~which is the town of Big Bay and Powell Township.(? What is this referring to??).~~ The proposed location and method of construction results in greater ~~wetland~~ aquatic resource impacts ~~less stream impacts~~ than the potential ~~Red Road/CR510~~ alternatives.

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Based upon available project information, it appears that an alternate route not ruled out as a feasible and prudent alternative has the potential to fulfill most, if not all, of the stated project purpose. The project purpose has been notably narrowed further by the applicant's alternatives analysis and recent geographic division of the county, depicting the area of northwest Marquette County. See page 34 of the April 12, 2012 information submittal. (this paragraph needs to be discussed before finalizing)

(e) The probable effects on recognized historic, cultural, scenic, ecological, or recreational values and on the public health or fish or wildlife.

(Finding) The proposed road would ~~potentially~~ impact Native American cultural values by essentially bisecting a unique large and largely undeveloped area covered by treaty rights (reference KBIC and related

comments). It is unclear as to what regulatory significance the KBIC objections carry at either the state or Federal level. There are no archeological concerns on state owned property however the DNR recommended listed in several locations along the proposed road route, and more in-depth archeological surveys should be performed on private and corporate lands, in these locations.

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The applicant noted that according to the URS Corporation Phase 1 archeological survey the proposed CR-595 road will not affect any archeological resources that are eligible to the National Register for Historic Places.

The proposed road would impact scenic values in a way that is positive for some and negative for others. The proposed road would negatively impact ecological values by permanently eliminating 25.81 acres of wetlands; and resulting in new stream crossings in currently road-less locations. Ecological impacts will include impacts to fish and wildlife habitat, water quality, result in fragmentation of habitats, barriers to wildlife movement and increased wildlife mortality; and will cause further habitat degradation through the introduction of invasive species and road noise. The DNR has recommended and requested consultation on a number of mitigation techniques that could be used to minimize some of these impacts. See discussion found in section 30302 (1) (b)(ii).

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The impact on the public health would be positive in that accident victims in the remotest areas of northwestern Marquette County would receive faster emergency service, although the road would unavoidably result in an increased need for these services.

In summary, construction of the proposed road would result in some public health benefits to the extent that some emergency services are benefitted. Conversely, it would result in permanent ecological impacts to a unique area having one of the lowest road densities in the Northern Great Lakes Region, resulting in road noise impacts on recreational uses and wildlife populations, a barrier to wildlife movement, habitat fragmentation, and the direct loss of wetland and aquatic wildlife habitat including possiblepotential cumulative impacts to wetland functions and habitat, extending beyond the road right-of-way.

(f) The size of the wetland being considered.

(Finding)The proposed road would impact 25.81 acres of wetlands, and result in possible cumulative impacts to additional aquatic resources outside of the road right-of-way. These impacts to wetlands and aquatic resources would be in an area which includes portions of 4 watersheds, located in Marquette and Baraga Counties. A significant portion of the

affected wetlands are designated S3, vulnerable to extirpation in the state of Michigan (verify this statement)- Verified by MNFI web page information-!

(g) The amount of remaining wetland in the general area.

***(Finding) There is a significant amount of wetland in the general area. A significant portion of the wetlands that would be affected by the proposed construction are types which are listed as vulnerable to extirpation in Michigan (verify). There would also be a significant amount- (how do we know this is a fact??) of these types of these types of wetlands remaining in the area. These wetlands are located in an area that is unique for having one of the lowest road densities in the Northern Great Lakes Ecological Region, meaning that these wetlands are some of the least disturbed examples of these communities remaining in the state of Michigan.***

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(h) Proximity to any waterbody.

***(Finding) The proposed road would cross 22 streams and be in close proximity to wetland complexes directly impacted by dredge and fill road construction activities, including impacts to rare wetlands and high functioning riparian wetlands (per MiRAM results from application), and would be in proximity to other streams and other wetland complexes indirectly affected by the proposed activity.***

(i) Economic value, both public and private, of the proposed land change to the general area.

***(Finding) The private economic value of the proposed land change to the general area would include more efficient transport of materials for industry, and increased industrial land use and development due to mining, logging, and other commerce. Property values would increase due to improved access to private properties and increased development.***

***The public economic value would come from increased tax base to the affected townships in remote northern Marquette County, and the jobs that could result from the increased tax base and increased industrial activity.***

***However, the zoning plan chapter of the Marquette County Comprehensive Plan points lists some negative impacts, stating in pertinent part:***

***"The proposed access road to the remote Kennecott mining site....will be an all season road...It will generate requests to rezone areas for year-round development...Such zoning would further burden already taxed township services...It increases the risk for and potential damage from wildfires. At the same time it would increase the difficulty in providing fire fighting and other emergency and routine services" (Was this submitted as part of the***

public comment for this application??)YES- by the Marquette County Zoning Plan, specifically. The zoning plan was submitted with comments, and verified by MDEQ staff reviewing it on the County's web site.

**The economic gains would also be offset to a degree by negative effects on existing quiet recreational tourism uses, and tribal cultural use.**

**~~Most importantly, S~~similar economic benefits may be realized from utilizing off-site alternatives that are less damaging to the wetland aquatic resources, although like the proposed route, each would benefit different portions of northwestern Marquette County to different degrees.**

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- (2) In considering a permit application, the MDEQ shall give serious consideration to findings of necessity for the proposed activity which have been made by other state agencies.

**(Finding) MDOT has determined that a new primary county road is needed, but does not limit it to the specific corridor defended by the application (Appendix B of the application). The Michigan State Police statement determines that the road would increase traffic safety by taking heavy trucks off existing routes and improving traffic flow on CR 550, the US-41/M-28 corridor and through the cities of Marquette, Negaunee, and Ishpeming (Appendix G of the application). The DNR indicated that the proposed route would reduce the response time for DNR firefighters to a remote part of Marquette County.**

**Some of These traffic safety issues ~~This could also be accomplished with the use of the Red Run/CR510 alternative routes, with significantly less impact on~~ wetland aquatic resources.**

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- (3) A permit shall not be issued unless it is shown that an unacceptable disruption will not result to the aquatic resources. In determining whether a disruption to the aquatic resources is unacceptable, the criteria set forth in section 30302 and subsection (2) shall be considered. A permit shall not be issued unless the applicant also shows either of the following:

- (a) The proposed activity is primarily dependent upon being located in the wetland.

**(Finding) The proposed road is not dependent upon being located in a wetland.**

- (b) A feasible and prudent alternative does not exist.

**(Finding) It has not been shown by the applicant that a less damaging feasible and prudent alternative does not exist. The Red Road/CR510**

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alternative is still being evaluated by the Department as to its ability to be a feasible and prudent alternative.

- (4) An alternative that entails higher cost, as described in R 281.922(a) (11) of the Michigan administrative code, is not feasible and prudent if those higher costs are unreasonable. In determining whether such costs are unreasonable, the department shall consider both of the following:

- (a) The relation of the increased cost to the overall cost and scope of the project.

**(Finding)** ~~The One of the 2 off-site alternatives which have~~ not been ruled out would entail higher cost. The Red Road/CR510 route would increase cost by 33%. ~~The Mulligan East route would increase cost by 54 %40%.~~ Such cost increases ~~may are likely not be~~ unreasonable, in consideration of the methods that would be necessary to significantly reduce detriments to the aquatic resources that would result from the proposed route. For example, the cost of spanning a sensitive wetland during road construction may well be within the normal range of typical costs for road construction when spanning other roads, rivers, or obstacles; where such cost would be unreasonable for obtaining access to a small business site. ~~However it is also not known at this time if there would be similar eCost increases for measures to further reduce resource impacts for the Red Road/CR510 alternative may increase the cost of that route. Less measures would be needed to reduce resource impacts for the upgrade of an existing road, than those needed to reduce detriments to the aquatic resources from a new road.~~

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- (b) Whether the projected cost is substantially greater than the costs normally associated with the particular type of project.

**(Finding)** ~~see (a) above. The estimated cost for the CR-595 project is \$4.0 million per mile for the proposed 21.4 mile road. The estimated cost of the Red Road/CR510 alternative is \$2.8 million per mile for the 39.9 mile road.~~

Rule 281.922a Permit application review criteria, states in pertinent part:

Rule 2(a)

(4) A permit applicant shall completely define the purpose for which the permit is sought, including all associated activities. An applicant shall not so narrowly define the purpose as to limit a complete analysis of whether an activity is primarily dependent upon being located in the wetland and of feasible and prudent alternatives. The department shall independently evaluate and determine if the project purpose has been appropriately and adequately defined by the applicant, and shall process the application based on that determination.

(10) An alternative may be considered feasible and prudent even if it does not accommodate components of a proposed activity that are incidental to or severable from the basic purpose of the proposed activity.

**(Finding)** The project purpose stated in the application is acceptable. The applicant has eliminated the remaining alternatives by saying they are not feasible or prudent and/or do not meet the project purpose. With the Red Road/CR510 alternative they indicate that the route is 19.9 miles longer which would require substantial additional expenditures for maintenance which they estimate as \$76,000 per year. They further argue that this alternative does not substantially improve emergency, commercial, and recreational access to Northwest Marquette County using Figure 2 to divide the county (see page 34 of the April 12, 2012 information submittal). They also argue that this alternative cost \$43 more than the CR-595 alternative although this includes increased costs to haul ore for the mine. If you neglect the hauling costs then the increase is \$28 million (33%). The Red Road/CR510 alternative would impacts 18.3 acres of wetland and necessitate upgrading 34 existing stream crossings. The CR 595 route would impact versus 25.4581 acres of wetland and necessitate upgrading 2215 existing stream crossings and constructing 7 new stream crossings respectively for CR-95. ~~but has subsequently been inappropriately applied in the evaluation of feasible and prudent alternatives by narrowing it to eliminate all less damaging alternatives. The latest information provided by the applicant includes a map indicating the area identified as northwest Marquette County in a way that appears to further restrict the geographic area to be served by the project purpose. It shows the northwest/north central part of Marquette County divided into halves by a curved line (see page 34 of the April 12, 2012 information submittal).~~

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## Mitigation

### Rule 281.925 Mitigation

Rule 5. (1) As authorized by section 30312(2) of the act, the department may impose conditions on a permit for a use or development if the conditions are designed to remove an impairment to the wetland benefits, to mitigate the impact of a discharge of fill material, or to otherwise improve the water quality.

- (a) The wetland impacts are otherwise permissible under sections 30302 and 30311 of the act.

**(Finding)** The application does not rule out feasible and prudent alternatives with less impact on wetland aquatic resources. The application does not show that the proposed route would not cause an



**unacceptable disruption to the aquatic resources. ( This paragraph needs to be reviewed before finalizing the findings)**

- (b) No feasible and prudent alternative to avoid wetland impacts exists.

**(Finding) A lack of feasible and prudent alternatives has not been established by the application. ( This paragraph needs to be reviewed before finalizing the findings)**

- (c) An applicant has used all practical means to minimize impacts to wetlands. This may include the permanent protection of wetlands on the site not directly impacted by the proposed activity.

**(Finding) The applicant proposes several techniques to minimize impacts to wetlands including the use of 1 on 2 slopes with guard rail, the use of reduced speed limits in certain sections of the proposed roadway, the use of bridges instead of culverts on some of the stream crossings, redirecting some of the stormwater runoff from directly entering the stream/wetlands and the use of cross culverts and a 3 foot layer of subsurface porous rock to allow groundwater flow to easily move from one side of the road to the other. The Resource agencies have ask the applicant to explore other methods to further reduce impacts.** ~~**The application does not show that all practical means to avoid impacts to wetlands have been employed. The applicant does not describe mitigation for impacts to rare wetlands, and describes the creation of forested, scrub shrub, and emergent wetlands as mitigation. The wetland impacts are not fully quantified or qualified in the application. (Do we need to have the applicant specifically identify the amount of rare or imperiled wetlands??) The referenced summary table in the wetland functional assessment section of the application where rare wetland values are discussed is missing from the application, but was submitted on May 18, 2012. The EPA has indicated that mitigation only through creation is not acceptable and the applicant needs to look at other options as well including restoration and preservation. Further, the application does not propose wetland preservation as a means of wetland mitigation.**~~

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- (3) The department shall require mitigation as a condition of a wetland permit issued under part 303 of the act, except as follows:

- (a) The department may waive the mitigation condition if either of the following provisions applies:
- (i) The permitted wetland impact is less than 1/3 of an acre and no reasonable opportunity for mitigation exists.

**(Finding) The proposed activity has not been determined to be permissible, and would impact far in excess of 1/3 of an acre of wetland.**

- (ii) The basic purpose of the permitted activity is to create or restore wetlands or to increase wetland habitat.

***(Finding) The basic purpose of the proposed activity is not to create or restore wetland.***

- (b) If an activity is authorized and permitted under the authority of a general permit issued under section 30312(1) of the act, then the department shall not require mitigation. Public transportation agencies may provide mitigation for projects authorized under a general permit at sites approved by the department under a memorandum of understanding between the department and public transportation agencies.

***(Finding) The proposed activity does not fit any general or minor permit category.***

(4) The department shall require mitigation to compensate for unavoidable wetland impacts permitted under part 303 of the act utilizing one or more of the following methods:

- (a) The restoration of previously existing wetlands.

***(Finding) A limited amount of wetland restoration is proposed, without plans or performance factors for monitoring of the restored wetlands. The applicant was proposing to restore these wetlands but did not request that they be counted toward their mitigation proposal thus there would not be any monitoring conditions at this time unless these are included in the overall mitigation package.***

- (b) The creation of new wetlands.

***(Finding) The application proposes the creation of 49.4 acres of wetland, including forested wetland.***

- (c) The acquisition of approved credits from a wetland mitigation bank established under R281.951 et seq.

***(Finding) The application does not propose this type of mitigation.***

- (d) In certain circumstances, the preservation of existing wetlands. The preservation of existing wetlands may be considered as mitigation only if the department determines that all of the following conditions are met:
  - (i) The wetlands to be preserved perform exceptional physical or biological functions that are essential to the preservation of the

natural resources of the state or the preserved wetlands are an ecological type that is rare or endangered.

***(Finding) Although there are ~~potentially~~ rare wetlands in the vicinity that could be considered favorably for preservation, it ~~was~~ is not proposed by the applicant in the original application. The EPA has ~~suggested~~ requested that the applicant explore preservation as a means of providing some of the mitigation. The applicant is currently evaluating that request.***

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- (ii) The wetlands to be preserved are under a demonstrable threat of loss or substantial degradation due to human activities that are not under the control of the applicant and that are not otherwise restricted by state law.

***(Finding) see (i) above.***

- (iii) The preservation of the wetlands as mitigation will ensure the permanent protection of the wetlands that would otherwise be lost or substantially degraded.

***(Finding) see (i) and (ii) above.***

- (5) The restoration of previously existing wetlands is preferred over the creation of new wetlands where none previously existed. Enhancement of existing wetlands is not considered mitigation. For purposes of this rule, wetland restoration means the reestablishment of wetland characteristics and functions at a site where they have ceased to exist through the replacement of wetland hydrology, vegetation, or soils.
- (6) An applicant shall submit a mitigation plan when requested by the department. The department may incorporate all or part of the proposed mitigation plan as permit conditions. The mitigation plan shall include all of the following elements:
  - (a) A statement of mitigation goals and objectives, including the wetland types to be restored, created, or preserved.

***(Finding) The application contains a vague statement of mitigation goals and objectives in AAPA section 8, by including a table listing wetland types and corresponding mitigation acreages required. It lists performance objectives, but has an incomplete list of functions and values that would be lost from the impacted wetlands. It does not state the replacement of lost wetland functions as a wetland mitigation objective. ( We should relay these concerns to the applicant at some point)***

- (b) Information regarding the mitigation site location and ownership.

**(Finding) This information is provided for the proposed mitigation sites.**

- (c) A site development plan.

**A plan view of each site is provided, but the plans fail to include cross sections or detailed information, such as proposed wetland plant and wildlife habitat functions replacement, or replacement of other lost wetland functions, not properly defined in the application. ( We should relay these concerns to the applicant at some point)**

- (d) A description of baseline conditions at the proposed mitigation site, including a vicinity map showing all existing rivers, lakes, and streams, and a delineation of existing surface waters and wetlands within the proposed mitigation area.

**(Finding) This information is not provided; and a significant portion of the soils listed for the proposed mitigation sites are hydric soils, or soils with hydric inclusions. No wetland delineation of the proposed mitigation sites is provided. None of the other required information is provided. ( This is confusing on the one hand we are saying they are trying to create mitigation by excavating 15-20 feet of soil which they have said are not existing wetland but this is saying this area is hydric soil. )**

Performance standards to evaluate the mitigation.

**(Finding) Performance standards are provided but lacking in detail such as proposed wetland plant communities and wildlife goals, and functions proposed to replace functions lost from the wetlands, including rare wetlands, which would be impacted by the proposed road route. ( We should relay these concerns to the applicant at some point)**

- (e) A monitoring plan.

**(Finding) A monitoring plan is provided, but does not include the 3.4 acres of wetland restoration proposed. These areas should be included in the monitoring plan, even though mitigation credit is not being sought. (Should they?? There is no specific plan for monitoring of invasives, although the applicant states that monitoring for invasives is proposed. ( We should relay these concerns to the applicant at some point)**

- (f) A schedule for completion of the mitigation.

***(Finding) Not provided in the mitigation plan. ( We should relay these concerns to the applicant at some point)***

(g) Provisions for the management and long-term protection of the site.

The department shall, when requested by the applicant, meet with the applicant to review the applicant's mitigation plan.

***(Finding) No provisions are included for the long term protection of the proposed mitigation sites however standard permit conditions will require that all mitigation areas be protected by a conservation easement and this will be required before any portion of the financial assurance can be released. -***

(7) An applicant shall provide mitigation to assure that, upon completion, there will be no net loss of wetlands. The mitigation shall meet the following criteria as determined by the department:

(a) Mitigation shall be provided on-site where it is practical to mitigate on-site and where beneficial to the wetland resources.

***(Finding) Most of the proposed mitigation is in the corresponding watersheds where wetland impacts are proposed, except that the impacts to wetlands in the Dead River watershed are proposed to be mitigated in 2 of the other watersheds, due to an undocumented lack of mitigation potential in the Dead River watershed.***

(b) If subdivision (a) of this subrule does not apply, then an applicant shall provide mitigation in the immediate vicinity of the permitted activity if practical and beneficial to the wetland resources. "Immediate vicinity" means within the same watershed as the location of the proposed project. For purposes of this rule, a watershed refers to a drainage area in which the permitted activity occurs where it may be possible to restore certain wetland functions, including hydrologic, water quality, and aquatic habitat functions. Watershed boundaries are shown in Figure 1 in R 281.951.

***(Finding) More complete information is needed to justify mitigating Dead River watershed impacts in the other watersheds. ( We should relay these concerns to the applicant at some point. The EPA indicated that mitigation could possibly be broken down in Lake Michigan and Lake Superior)***

(c) Mitigation shall be on-site or in the immediate vicinity of the permitted activity unless the department determines that subdivisions (a) and (b) of this subrule are infeasible and impractical.

**(Finding) Reference finding for (b) above.**

- (d) The department shall require that mitigation be of a similar ecological type as the impacted wetland where feasible and practical.

**(Finding) Wetland types and corresponding mitigation acreages are shown in table 8-1, but no further reference to this objective is provided in the wetland mitigation proposal. (We should relay these concerns to the applicant at some point)**

- (e) If the replacement wetland is of a similar ecological type as the impacted wetland, then the department shall require that the ratio of acres of wetland mitigation provided for each acre of permitted wetland loss shall be as follows:
  - (h) Restoration or creation of 5.0 acres of mitigation for 1.0 acre of permitted impact on wetland types that are rare or imperiled on a statewide basis.

**(Finding) Acreages of S-3 wetlands proposed to be impacted should be provided, and a more appropriate level of information or mitigation type than creation should be considered for mitigation to these imperiled wetlands. There is no 5:1 ratio proposed for mitigation of impacts to these wetlands, or even a complete discussion of the acreages and functions that would be lost as a result of the proposed impacts to these wetlands. (We should relay these concerns to the applicant at some point)**

- (ii) Restoration or creation of 2.0 acres of mitigation for 1.0 acre of permitted impact on forested wetland types, coastal wetlands not included under (i) of this subdivision, and wetlands that border upon inland lakes.

**(Finding) The applicant has propose mitigating forested wetland impacts at a 2 to 1 ratio ~~Appropriate ratios may be proposed for these wetland types, except for S-3 designated wetlands, as above.~~**

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- (iv) Restoration or creation of 1.5 acres of mitigation for 1.0 acre of permitted impact on all other wetland types.

**(Finding) Appropriate ratios proposed, except where rare wetlands would be impacted, meaning that a 5:1 ratio is appropriate. The applicant is working on providing information regarding impacts to rare wetlands.**

- (v) 10 acres of mitigation for 1.0 acre of impact in situations where the mitigation is in the form of preservation of existing wetland as defined in subrule (4) of this rule.

(vi)

**(Finding) Preservation is not proposed by the mitigation plan.**

(f) The department may adjust the ratios prescribed by this rule as follows:

(i) The ratio may be increased if the replacement wetland is of a different ecological type than the impacted wetland.

**(Finding) No preservation of wetlands is currently -proposed, though it would be more appropriate than creation of wetlands to replace impacted forested wetlands and S-3 designated wetlands; these wetland types could be obtained in the proposed project area for preservation. The EPA has requested suggested that the applicant explore the use of preservation as a means of meeting mitigation requirements.**

(ii) If the department determines that an adjustment would be beneficial to the wetland resources due to factors specific to the mitigation site or the site of the proposed activity, then the department may increase or decrease the number of acres of mitigation to be provided by no more than 20 percent. This shall not limit the amount which a ratio may be increased under subdivisions (f) and (i) of this subrule.

**(Finding) The proposed wetland impacts are within an area documented to be one of the areas of lowest road density in the Northern Great Lakes Region, and it may be appropriate to seek maximum mitigation acreages due to the unique area proposed to be impacted. Mitigation would only be considered if project information clearly demonstrated that a less damaging feasible and prudent ~~practical~~ alternative was not available, for the proposed location and methods of construction.**

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(g) The mitigation shall give consideration to replacement of the predominant wetland benefits lost within the impacted wetland.

**(Finding) The wetland functions of the wetlands proposed to be impacted are not provided. (We should relay these concerns to the applicant at some point)**

(h) The department shall double the required ratios if a permit is issued for an application accepted under section 30306(5) of the act.

**(Finding) This does not apply.**

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(i) The department shall determine mitigation ratios for wetland dependent activities on a site-specific basis.

**(Finding) The proposed activity is not wetland dependent.**



- (8) Except where mitigation is to occur on state or federally owned property or where the mitigation is to occur in the same municipality where the project is proposed, the department shall give notice to the municipality where the proposed mitigation site is located and shall provide an opportunity to comment in writing to the department on the proposed mitigation plan before a mitigation plan is approved by the department.
- (9) An applicant shall complete mitigation activities before initiating other permitted activities, unless a concurrent schedule is agreed upon between the department and the applicant, and an adequate financial assurance mechanism is provided by the applicant.
- (10) The department may require financial assurances to ensure that mitigation is accomplished as specified.
- (11) An applicant shall protect the mitigation area by a permanent conservation easement or similar instrument that provides for the permanent protection of the natural resource functions and values of the mitigation site, unless the department determines that such controls are impractical to impose in conjunction with mitigation that was undertaken as part of state funded response activity under Act No. 451 of the Public Acts of 1994, as amended.
- (12) An applicant, with the approval of the department, may provide all or a portion of the mitigation through the acquisition of approved credits from a wetland mitigation bank established under R 281.951 et seq. One credit shall be utilized for each acre of mitigation required under subrule (7) of this rule.

### **Inland Lakes and Streams Review Criteria**

Section 30106, of Part 301, states in a pertinent part:

The department shall issue a permit if it finds that the structure or project will not adversely affect:

The public trust, as defined by R 281.811, Definitions:

(1)(g) Public trust means all of the following:

- (j) The paramount right of the public to navigate and fish in all inland lakes and streams which are navigable.

***(Finding) The impact of the proposed road on the public's right to navigate and fish will be minimal.***

- (ii) The perpetual duty of the state to preserve and protect the public's right to so navigate and fish.

**(Finding) Same as (i) above.**

- (iii) The paramount concern of the public and the protection of the air, water, and other natural resources of this state against pollution, impairment, and destruction.

**(Finding) The CR-595 alternative will have 22 stream crossings (15 existing and 7 new) that will be design at a minimum to span the bankfull width which is the recommended minimum design standard for the MDEQ Department to minimize impacts to the resources. In some cases larger structures may be required to address wildlife passage issues. The Red Road/CR510 alternative will have 33(all existing) stream crossings. It has not been shown by information provided in the application that there is not a feasible and prudent alternative route which could be utilized that would result in less pollution, impairment and destruction of the natural resources of the state.**

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- (iv) The duty of the state to protect the air, water, and other natural resources of this state against pollution, impairment, or destruction.

**(Finding) Same as (iii) above.**

Riparian rights, as defined by R 281.811, Definitions:

- (2) "Riparian rights" as defined in the act, means all the rights accruing to the owners of riparian property, including the following rights, subject to the public trust:

- (a) Access to the navigable waters.

**(Finding) Riparian owner access to navigable waters is not known to be adversely impacted, based on information in the application.**

- (b) Dockage to boatable waters, known as wharfage.

**(Finding) Same as in (a) above.**

- (c) Use of water for general purposes, such as bathing and domestic use.

**(Finding) Same as in (a) above.**

- (e) Title to natural accretions.

**(Finding) Same as in (a) above.**

Section 30106, of Part 301, further states in a pertinent part:

Rule (2)

(2) In passing upon an application, the department shall consider:

- (a) The possible effects of the proposed action upon the inland lake or stream;

**(Finding) The proposed road has 22 stream crossings, 15 of which are existing. ~~The existing crossings would be improved to varying degrees. The applicant has been asked to look at ways to further reduce impacts, although it appears that impacts are not minimized by the use of more bridges, and shorter culverts with headwalls to minimize impacts of the proposed route. 7 of the proposed stream crossings are new, potentially increasing fragmentation of adjacent wildlife and stream stream habitat, thus interfering with aquatic organism and other wildlife passage. The proposed road would impact water quality at the stream crossings due to road run-off and, chemical pollution, thermal pollution due to removal of vegetation adjacent to the road, and introduction of invasive species, and changes in hydrology. The applicant has attempted to minimize the impact of stormwater runoff by diverting the runoff away from entering directly into the stream. The DNR has request the applicant to consider: the use native grasses for all roadside plantings; survey for and remove invasive/exotic noxious plants. reducing road salt loads and examine calcium magnesium acetate or potassium acetate as an alternative to road salt.~~**

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- (b) The waters from which or into which its waters flow;

**(Finding) Same as (a) above.**

- (c) The uses of all such waters, including uses for:
  - (i) Recreation

**(Finding) The new road would open up additional recreational access to some streams, but conversely would result in more difficult or dangerous recreational stream access adjacent to the road due to the high profile of the proposed road, and heavy industrial traffic use. The road would eliminate current access from some existing two track roads and trails. Recreation would be negatively impacted by road noise.**

(ii) Fish

*(Finding) New stream crossings in road-less portions of the proposed route would result in greater impacts to fish. The applicant has minimized these impact by proposing properly design structures to address fish passage issues. There would be an overall improvement in terms of fisheries resources by the replacement of currently existing undersized stream crossing. (this needs to be discussed, as more lineal feet of stream will be impacted at these crossings and would need to be minimized to make this true. We have not yet had the opportunity to review any revised plans to address this) ~~than would occur with the upgrade of existing roads only. At existing crossings, shorter stream crossing structures would result in less impacts on aquatic habitats.~~*

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(iii) Wildlife

*(Finding) The proposed road has negative ecological impacts, one of the greatest being the potential impacts on wildlife. Impacts to wildlife would include habitat fragmentation, adverse impacts of road noise, direct habitat loss, degradation of habitat, and the barrier effect of the road, which would isolate wildlife populations, and increase mortality.*

*The proposed road is proposed to be constructed though an area with the highest moose population density in Michigan. The proposed road would negatively impact moose populations through negative effects on winter habitat, overall habitat fragmentation, and by increased individual mortality resulting from vehicle strikes.*

*While the MDNR would prefer impacts to occur on currently existing roads, they have proposed a number of measures that could be used to minimize some of these impacts.*

(iv) Aesthetics

*(Finding) The new road will improve aesthetics for some and degrade it for others, depending on individual perspective.*

(vii) Local government

*(Finding) The proposed road would not impact use of water by local government.*

(viii) Agriculture

***(Finding) The proposed road would not impact the use of water for agriculture.***

(ix) Commerce

***(Finding) The proposed road would not impact use of water by commerce.***

(x) Industry

***(Finding) The proposed road would not impact use of water by industry.***

The department shall not grant a permit if the proposed project or structure will unlawfully impair or destroy any of the waters or other natural resources of the state.

***(Finding) Same as findings under Rule 2(a) of the administrative rules for Part 303, Wetlands Protection, and Rule 4 of the administrative rules for Part 301, Inland Lakes and Streams, below.***

#### Rule 281.814 Environmental Assessment

Rule 4. In each application for a permit, all existing and potential adverse environmental effects shall be determined and the department shall not issue a permit unless the department determines both of the following:

- (a) That the adverse impacts to the public trust, riparian rights, and the environment will be minimal.

***(Finding) The impacts to the public trust and the environment from the proposed road would not be minimal because less damaging alternative routes and construction methods with less aquatic resource impacts for the proposed route have not been ruled out by the application. ( This paragraph will need to be reviewed once this document is finalized)***

- (b) That a feasible and prudent alternative is not available.

***(Finding) The application lacks sufficient information to document that a less damaging feasible and prudent alternative route is not available. ( This paragraph will need to be reviewed once this document is finalized)***

Rule 315, of Part 31, Water Resource Protection, Floodplains, requires that:

- (1) \_\_\_ An encroachment in the floodway which, acting alone or in combination with existing or future similar works, may cause harmful interference shall not be approved. In making this determination, an analysis shall be made for a range of discharges up to and including the 100-year flood discharge modified to reflect changes in land use and development reasonably anticipated to occur within the watershed up to twenty years from the date of application.

**Finding:**

Six of the twenty two stream crossings require a review under the Floodplain Regulatory authority found in Part 31 (Part 31). The department finds that the hydraulic analysis submitted for the six (6) crossings meet the criteria for conducting hydraulic analysis per Rule 315(1). In addition, the hydraulic reports submitted to the MDEQDepartment as part of the application package meet the criteria for conducting and submitting a hydraulic report found in the MDEQ Land and Water Management Division Hydraulic Report Guidelines – October 2006 revision.

- (2) A bridge or culvert, constructed or reconstructed, shall be capable of passing the 100-year flood without causing harmful interference.

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**Finding**

Rule 323.1311(g) defines harmful interference as causing an increased stage or change in direction of flow that causes, or is likely to cause damage to property, a threat to life or of personal injury, pollution, impairment or destruction of water or other natural resources.

The hydraulic reports submitted with the application show that the proposed structure crossing of Mulligan Creek will increase the 100-year flood stage upstream of the proposed crossings by 0.57 feet a distance of 424 feet upstream of the crossing. Affected property owner statements were sent by the applicant to the affected landowner and returned for the Mulligan Creek crossing. The applicants engineer has certified that there will be no harmful interference caused by this increase. The MDEQDepartment concurs with this finding.

The hydraulic reports submitted with the application show that the proposed structures crossing of the Middle Branch of the Escanaba will increase the 100-year flood stage upstream of the proposed crossings by 0.10 feet 3,638 feet upstream of the proposed crossing. Affected property owner statements were sent by the applicant to the two affected landowner and one has been returned. The applicant indicated the second statement would be provided when the landowner signs the letter. The applicants engineer has certified that there will be no harmful interference caused by this increase. The MDEQDepartment has not made a determination at this time as to whether this crossing meets the criteria under Part 31 for permit issuance since it has not received the letter from the second affected landowners.

The hydraulic analysis submitted for the remaining four (4) crossings, Dead River, Yellow Dog and the East Branch Salmon Trout River and Second River indicate that the crossings are capable of passing the 100-year flood without causing harmful interference.

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(3) An encroachment in the floodplain, landward of the floodway limits, which, acting alone or in combination with existing or future similar works, does not cause harmful interference may be permitted.

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Finding:

Based upon the information submitted with the applications, the proposed crossings will involve changing the natural grades within the vicinities of the crossings from approximately 5 feet to 20+ feet above natural grade. The hydraulic modeling demonstrates that the structures will be adequate to convey the flood flows up to the 100-year flood event without harmful interference (increased stage or direction of the flow of the river) or, if not, affected property owner statements were or will be obtained from the affected landowners.

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~~(Finding) Sue~~

~~(2) A bridge or culvert, constructed or reconstructed, shall be capable of passing the 100-year flood without causing harmful interference.~~

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~~(Finding) Sue~~

~~(3)(4) An encroachment in the floodplain, landward of the floodway limits, which, acting alone or in combination with existing or future similar works, does not cause harmful interference may be permitted.~~

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~~(Finding) Sue~~

**Conclusion of Law:** ~~The proposed road construction does not meet the permit criteria found in section 30311 of Part 303, Wetlands Protection; or Rule 4 of the Administrative rules for Part 301, Inland Lakes and Streams; of the Natural Resources and Environmental Protection Act of 1994, as amended, and a permit cannot be issued for the project as proposed.~~



